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## **Engagement Vortex: Navigating Employee Engagement through Bibliometric Insights**

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Article Info	ABSTRACT
<p><b>Article history:</b></p> <p>Received: 26 July 2023 Revised: 3 August 2023 Accepted: 20 August 2023 Published: 1 September 2023</p> <p><b>Keywords:</b></p> <p>Employee Engagement, Bibliometric Analysis, VOSviewer, Publish or Perish</p> <p><b>OPEN ACCESS</b></p>	<p>The importance of employee engagement in the dynamic field of organizational behavior and human resource management has grown significantly. Despite its increasing significance, employee engagement remains a complex and enigmatic construct. This study aims to conduct a comprehensive bibliometric analysis using the SCOPUS database to elucidate the complexities of employee engagement and trace its historical evolution. Advanced analytical tools, including VOSviewer and Harzing Publish or Perish software, are employed to facilitate the analysis of large volumes of scholarly data and enhance our understanding of the subject matter. By systematically reviewing extensively cited scholarly literature, publications by distinguished authors, and discussions in leading academic journals, we have identified and highlighted the prevailing trends and patterns in employee engagement research. This methodical evaluation illuminates both traditional and non-traditional aspects of the topic, thereby enhancing our understanding of its complex nature. The findings of this study are significant, as they not only provide insight into past and current understanding of employee engagement but also identify potential areas for further research. Thus, this study not only enriches our knowledge of employee engagement but also provides a robust foundation for future explorations in this critical field.</p>

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## INTRODUCTION

The notion of engagement has undergone a transformation in the realm of workplace behaviour research, tracing its roots to the initial decades of the 1900s. During the 1920s, Mary Parker Follett and Lillian Gilbreth were among the pioneering scholars who conducted research on the psychological and social dimensions of work and organizations, thereby contributing to the early development of the field of engagement. Shuck and Wollard (2010) highlighted the significance of human relations, collaboration, and involvement in augmenting the motivation and productivity of employees. During the 1950s, Frederick Herzberg introduced the two-factor theory of motivation, which distinguished between hygiene factors that avert dissatisfaction and motivator factors that enhance satisfaction and work performance. The concept of hygiene factors encompasses remuneration, working environment, managerial oversight, and corporate regulations, whereas motivator factors comprise accomplishment, acknowledgement, accountability, progression, and development. Herzberg's (1959) theory posits that hygiene factors are a prerequisite for motivation, yet they alone are insufficient. In contrast, motivator factors are deemed indispensable for fostering intrinsic motivation and engagement.

During the 1970s, Greg Oldham and Richard Hackman formulated the job characteristics theory. This theory suggests that specific attributes of jobs, such as skill variety, task identity, task significance, autonomy, and feedback, can impact the psychological states of employees, including their sense of meaningfulness, responsibility, and knowledge of results. As a result, these attributes can influence the motivation and satisfaction levels of employees. Oldham and Hackman (1976) contended that job roles that exhibit high levels of these attributes can amplify employees' intrinsic motivation and engagement by instilling a sense of purpose, difficulty, and gratification in their work. During the 1980s, scholars redirected their attention from job satisfaction to organizational commitment, investigating the impact of employees' allegiance and devotion to their respective organizations on their performance and results. The authors provided a definition of organizational commitment as the extent to which employees exhibit a sense of identification with and demonstrate a willingness to contribute to their respective organizations. These researchers differentiated among three distinct forms of commitment, namely affective commitment which pertains to emotional attachment, continuance commitment which is associated with perceived costs of leaving, and normative commitment which refers to a sense of obligation. Mowday et al. (1982) suggested that employees exhibiting elevated levels of affective commitment are prone to displaying greater engagement and superior performance for their respective organizations.

During the 1990s, William Kahn coined the phrase "employee engagement" to refer to the mental states and observable actions of employees who exhibit dedication and passion towards their job and work environment. He posited that the occurrence of engagement necessitates the presence of three psychological conditions, namely meaning, safety, and availability. Kahn (1990) postulates that meaning pertains to the purpose and significance that employees derive from their work, safety pertains to the level of comfort and security that employees feel in expressing their true selves at work, and availability pertains to the extent to which employees possess the necessary physical, emotional, and cognitive resources to invest in their work roles. Christina Maslach and Susan Jackson concurrently introduced the notion of burnout as a contrasting state to engagement, which is typified by emotional depletion, depersonalization, and diminished personal achievement. According to Maslach and Jackson (1981), emotional exhaustion pertains to the sensation of being fatigued and inundated by occupational obligations. Depersonalization, on the other hand, pertains to the emergence of pessimistic and contemptuous attitudes towards one's job and patrons. Lastly, reduced personal accomplishment pertains to the decline in self-assurance and proficiency in one's occupational skills. The Maslach Burnout Inventory was devised to assess the various dimensions of burnout.

Contemporary studies have persisted in examining the precursors and consequences of employee engagement. Sun and Bunchapattanasakda (2019) conducted a literature review on employee engagement and categorised the definitions into two types: a multifaceted construct consisting of cognition, emotions, and behaviours, and a unitary construct characterised by a positive state of mind, dedicated willingness, and the absence of burnout. The authors have also identified three theoretical frameworks that are employed to elucidate the varying levels of employee engagement, namely the Needs-Satisfaction framework, the Job Demands-Resources model, and Social Exchange Theory. The determinants that impact employee engagement have been categorised into three

distinct groups: organizational factors, job factors, and individual factors. Organizational factors include management style and job rewards, while job factors encompass work environment and task characteristics. Lastly, individual factors consist of physical energies and self-consciousness. Research has revealed that there exists a positive correlation between employee engagement and both individual performance, such as organizational commitment and positive behaviour, and organizational performance, such as customer satisfaction and financial return.

## LITERATURE REVIEW

Employee engagement remains a central theme in organizational psychology and human resource management literature. Recognized as a multifaceted construct, its role in influencing employee performance and the overall success of organizations cannot be understated. This review critically synthesizes scholarly discussions derived from recent literature to offer a comprehensive understanding of the evolving research landscape on employee engagement. A key point of discussion in recent literature revolves around the complex and multidimensional nature of employee engagement. The conceptualization of engagement has undergone significant evolution since Kahn's seminal work in 1990, with recent scholarship suggesting more nuanced understandings. For instance, Shuck et al. (2017) propose a conceptual model of engagement that considers cognitive, emotional, and behavioural facets. This model reflects the ongoing dialogue around how these dimensions interact and whether they are sufficiently captured in existing engagement frameworks.

The term "employee engagement" pertains to a comprehensive range of factors that encompass an individual's cognitive, emotional, and behavioural involvement and contentment with their occupation, as stated by Schaufeli (2013). This encompasses their level of organizational identification, their dedication to their job responsibilities, and their level of energy and enthusiasm in executing tasks. Conversely, work engagement pertains to the level of vigour, dedication, and absorption that an employee demonstrates towards their work duties (Bakker & Demerouti, 2007). From this perspective, the concept is more focused on tasks and indicates the level of enthusiasm and engagement that an employee demonstrates in their daily work. One could posit that work engagement is a narrower construct compared to employee engagement, as it pertains specifically to task-related involvement. Employee engagement, on the other hand, encompasses not only task involvement but also emotional and cognitive dedication to both the job and the organization.

A few research has also focused on the various factors influencing engagement. The Job Demands-Resources (JD-R) model, developed by Bakker and Demerouti, continues to be a prominent theory. However, Truss et al. (2013) emphasizes the importance of leadership style, particularly transformational leadership, in driving engagement, thereby challenging the JD-R model. This highlights the debate on the relative weight of different factors in influencing engagement levels. The outcomes associated with employee engagement have also been a focus of recent scholarly attention. A meta-analysis by Bailey et al. (2017) highlights the strong correlation between engagement and both individual and organizational performance. However, they also emphasize that the strength of these correlations can vary depending on the context and measurement methods.

The role of human resource practices in fostering engagement has been another focus in the recent literature. Jiang et al. (2017) argue that a strategic alignment between human resource practices and business objectives is essential for enhancing engagement. Similarly, Alfes et al. (2013) suggests that practices such as recognition, training, and performance management can significantly impact engagement levels. Recently, the importance of psychological safety and its relationship with employee engagement has also been underlined in the literature. Research by Newman et al. (2017) suggests that fostering a psychologically safe environment encourages engagement, as it permits employees to express themselves freely without fear of adverse consequences. This research broadens the debate on the role of organizational culture and its impact on employee engagement. The aforementioned are merely exemplars of the factors that influence employee engagement. Undoubtedly, there exist a plethora of additional examples that could be referenced.

Another significant area of focus is the role of technology in enhancing employee engagement. A study by Burnett and Lisk (2019) demonstrates that digital technologies, when used effectively, can boost engagement

by facilitating communication and collaboration. This growing line of research contributes to the discourse on the influence of the digital workplace on employee engagement. In the realm of remote work, which has gained prominence due to the COVID-19 pandemic, engagement has also been a subject of concern. Literature such as that by Gajendran et al. (2020) reveals that remote work can either promote or hinder engagement depending on various factors such as autonomy, work-life balance, and communication with supervisors.

Recent research has focused on understanding and improving employee engagement in the workplace. Davis and Van der Heijden (2022) present a new framework for understanding employee engagement, which visually delineates employee engagement from its antecedents and responds to debates regarding how employee engagement is positioned within the academic literature. This framework provides a valuable tool for researchers and practitioners seeking to better understand the complex relationships between employee engagement and other organizational factors. Stein et al. (2021) on the other hand discuss the importance of employee engagement and present a checklist of evidence-based recommendations for promoting it. These recommendations provide practical guidance for managers seeking to improve employee engagement in their organizations.

A Global Employee Engagement Benchmark study conducted by Great Place to Work® (2021) surveyed over 14,000 workers across 37 countries to determine the average employee experience around the world. The study found that only about half of employees worldwide are experiencing a great workplace, with little variation across regions. In the highest scoring region, Latin America, just 60% of employees report a positive employee experience, while in the lowest scoring region, Europe, only 52% of employees report a positive employee experience. The study also revealed four challenges common to most workplaces today: equity, meaningful connections, purpose, and leadership. More than half of workers feel pay and promotions are handled unfairly, and a significant portion of workers report a pervasive lack of personal connection and psychological safety. A large percentage of respondents also said their work lacked meaning or failed to make a difference, indicating that employees still struggle to experience purpose in their work. Finally, nearly half of all employees reported weak or poor relationships with their leaders. These findings highlight the importance of addressing these challenges in order to improve employee engagement in the workplace. By focusing on equity, meaningful connections, purpose, and leadership, organizations can create a more positive employee experience and reap the benefits of higher levels of employee engagement.

In addition to these studies, Abdullahi et al. (2023) published an article investigating the mediating effect of employee engagement on the relationship between employee relation practice and employee performance in Malaysian private universities. This study provides further evidence of the importance of effective employee relation practices in promoting employee engagement and improving organizational performance.

Given these points, the ever-evolving nature of employee engagement, the multitude of influencing factors, significant outcomes, and the strategic role of human resource practices render it a vibrant and critical field of study. There remains a need for ongoing research to reconcile these debates and deepen our understanding of this complex construct.

## **RESEARCH QUESTIONS**

The present study aims to conduct an analysis of extant research on employee engagement in the SCOPUS database spanning the period from 2013 to 2023. The present study is geared towards ascertaining the annual count of published employee engagement studies, scrutinising the most frequently cited articles and their respective contributors, examining the prevalent keywords associated with employee engagement studies, and discerning the foremost authors, institutions, and countries that contribute to employee engagement research, along with their corresponding volume of work. To achieve these objectives, the present study employed the following research questions:

1. How have the prevailing patterns in employee engagement research evolved with respect to the year of publication?
2. What is the scope of the existing literature on employee engagement, specifically concerning the authors, their institutional affiliations, countries of origin, and publication formats?
3. Who is the most influential researcher in the field of employee engagement based on the number of citations and overall influence?
4. What are the dominant keywords and trending topics in the current research literature on employee engagement?
5. How can we visualize and understand the patterns of co-authorship in the field of employee engagement research?
6. What patterns and relationships can be revealed by network visualization of co-authorship across different countries in the field of employee engagement?
7. What are the relationships and patterns between different organizations as revealed by network visualization of co-authorship in the field of employee engagement?

## **METHODOLOGY**

### **Source of Data**

The aim of this study is to improve the process of creating a comprehensive literature review and ensure that the results are trustworthy. This study used bibliometric analysis, which is a method of analysing academic literature. The study used the SCOPUS database, which is known for its careful selection of academic articles (Baas et al., 2020). According to Baas et al. (2020), the extensive utilisation of SCOPUS as a bibliometric data source can be attributed to its reliability and credibility. The popularity of this approach can be attributed to its extensive use in various fields such as research assessments, research landscape analysis, science policy evaluations, and university rankings. This study focuses solely on using the SCOPUS database to conduct bibliometric analysis. The decision was made to maintain the accuracy and reliability of our analysis. Combining multiple databases may compromise the accuracy of research findings. Based on a study by Alryalat et al. (2019), using multiple databases can make it difficult to conduct a thorough bibliometric analysis because it can be challenging to synchronise the bibliometric data obtained from two or more databases. Bibliometric analysis requires examining multiple databases separately because combining them manually is difficult due to inconsistent tag fields. The aforementioned methodology is supported by Echchakoui's (2020) research.

### **Analytical Tool**

A collection of data was created using the SCOPUS database. This data includes information such as the year of publication, title, authors, journal of publication, number of citations, and relevant keywords. The data covers the period from 2013 to 2023. To handle this large amount of data, we used the specialised features of VOSviewer software, specifically version 1.6.19. The use of VOS clustering and mapping techniques helped create user-friendly maps and simplified analysis by utilising VOSviewer software (Perianes-Rodriguez et al., 2016).

VOSviewer, a software utilised for displaying bibliometric networks, shares resemblances with Multidimensional Scaling (MDS). This method is unique because it can place objects in a space with few dimensions, which allows for a precise depiction of how closely related or similar pairs are based on their proximity in that space (Waltman et al., 2010). This statement suggests a departure from the traditional MDS

approach, which mainly concentrates on calculating similarity measures such as Jaccard indexes and cosine similarity, as proposed by Zupic and Čater (2015).

### **Obtaining Data Set**

The study was conducted using the bibliographic database SCOPUS due to its extensive coverage and peer-reviewed indexed publications, as noted by Birkle et al. (2020). The SCOPUS database was utilised to retrieve a comprehensive collection of pertinent literature by employing the keyword "employee engagement" for the period of 2013 to 2023. A search query was formulated and executed within the database. The search function is designed to locate the title of an article within its corresponding title, abstract, and keywords. The search query utilises the TITLE-ABS-KEY function to retrieve articles that contain the exact phrase "employee engagement". The search is limited to articles published between the years 2013 and 2023, as indicated by the PUBYEAR parameter. The specified duration is from 2013 to 2023. On June 3, 2023, a search was conducted on SCOPUS, resulting in the retrieval of 3,273 publications.

### **Data Analysis**

Bibliometric meta-data were analysed for things like co-authorship, keyword co-occurrence, and citation with the help of the VOSViewer programme. References to the same publication in two separate sources constitute bibliographic coupling. This concept is used to establish the relationships between components like publications, journals, and authors. Co-occurrence analysis of keywords can shed light on the domain's historical development (Deng & Xia, 2020). Therefore, it is an effective strategy for locating current trends in a particular field of study. Using citation analysis, academics can identify widely studied areas and widely cited works (Lai, 2020). The analysis' findings are displayed as a table or a network visualisation map.

## **RESEARCH FINDINGS AND DISCUSSIONS**

### **1. The prevailing patterns in employee engagement research with respect to the year of publication**

The number of articles published annually on the topic of employee engagement is shown in Figure 1 between the years 2013 and 2023. The data presented indicates that, aside from the year 2014, the body of research pertaining to employee engagement is significant and relatively uniform, exhibiting a consistent upward trend from 2013 to 2023. In 2013, a total of 186 papers were published, accounting for 5.68 percent of all publications. The following year, 172 articles were published, representing 5.26 percent of all publications. In 2015, 194 articles were published, accounting for 5.94 percent of all publications. The year 2016 saw the publication of 233 articles, representing 7.12 percent of all publications. Finally, in 2017, a total of 267 articles were published, accounting for 8.16 percent of all publications. In the years 2018 through 2023, a total of 2,221 works were published. The number of works published in each year varied, with 291 works published in 2018, 396 works published in 2019, 436 works published in 2020, 417 works published in 2021, 458 works published in 2022, and 223 works published in 2023. These figures represent 8.89%, 12.10%, 13.32%, 12.74%, 13.99%, and 6.81% of the total works published, respectively. The COVID-19 pandemic has sparked an increased interest in exploring strategies to maintain employee engagement. Anticipated was a surge of scholarly research on this topic within the academic discourse during the year 2020. The quantity of published material in this particular field exhibited a slight decline in the year 2021, followed by a subsequent rise in 2022, which was contrary to anticipated trends. As of the beginning of June 2023, there have been 223

documented publications pertaining to this field of study. It is currently premature to make any projections regarding the potential increase or decrease in research activity within this specific domain.

Documents by year

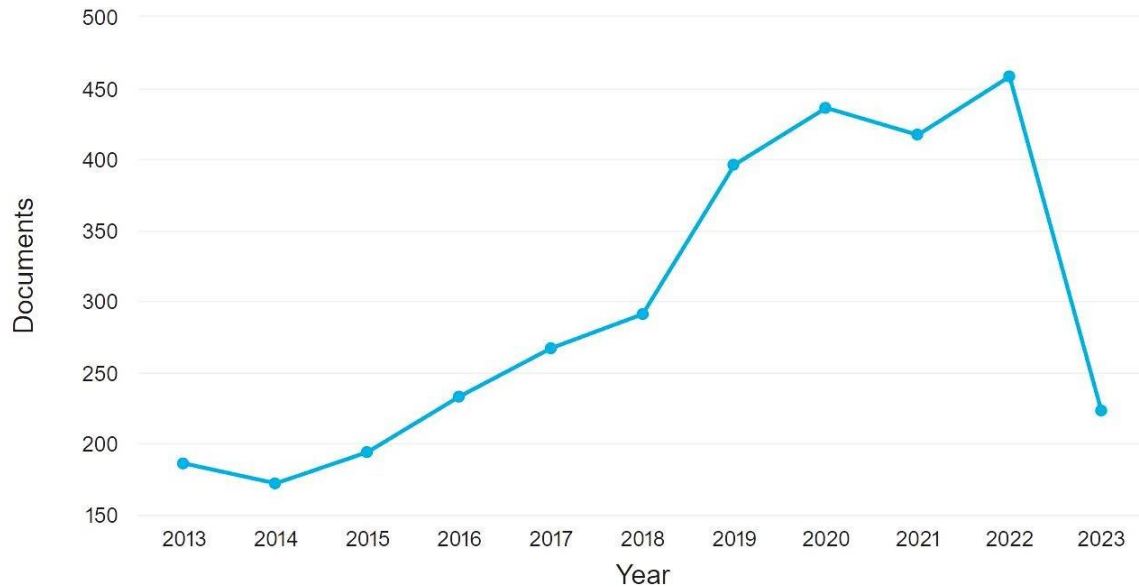


Figure 1. Publication on employee engagement research according to years

## 2. The scope of the existing literature in the discipline, encompassing details regarding the authors, their institutional affiliations, countries of origin, and publication format

Listed in Figure 2, a comprehensive breakdown of the number of publications authored by various individuals is presented. Notable contributors include B. Shuck, who has authored 31 publications (0.95%), A.B. Bakker with 28 publications (0.86%), K. Alfes with 15 publications (0.46%), S.L. Albrecht with 12 publications (0.37%), N. Martins with 11 publications (0.34%), K. Nimon with 11 publications (0.34%), L. Fletcher with 10 publications (0.31%), D. Zigarmi with 10 publications (0.31%), E. Demerouti with 9 publications (0.27%), and L. Eldor with 9 publications (0.27%).

## Documents by author

Compare the document counts for up to 15 authors.

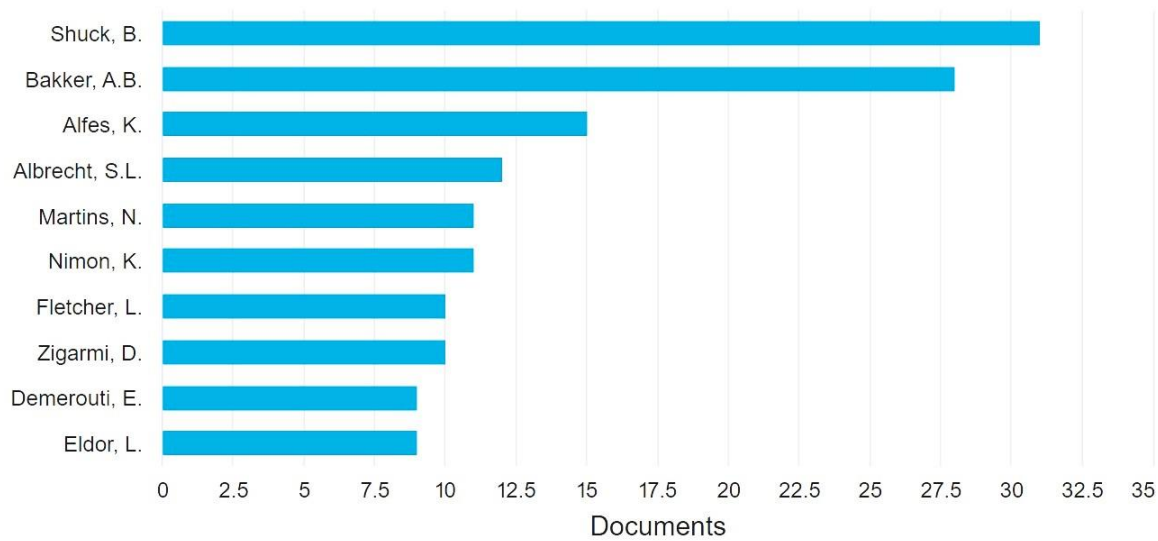


Figure 2. Publication on employee engagement research according to author

In terms of institutions, organizations, or universities that have made significant contributions to the field of employee engagement, the University of Louisville has produced 36 publications (1.10%), followed by Erasmus Universiteit Rotterdam with 30 publications (0.92%), Symbiosis International Deemed University with 26 publications (26%), Griffith University with 25 publications (0.76%), Amity University with 25 publications (0.76%), University of South Africa with 24 publications (0.73%), Pennsylvania State University with 22 publications (0.67%); North-West University with 21 publications (0.64%), Tilburg University with 19 publications (0.58%) and Universiti Utara Malaysia with 16 publications (0.49%). (Refer to Figure 3).

## Documents by affiliation

Compare the document counts for up to 15 affiliations.

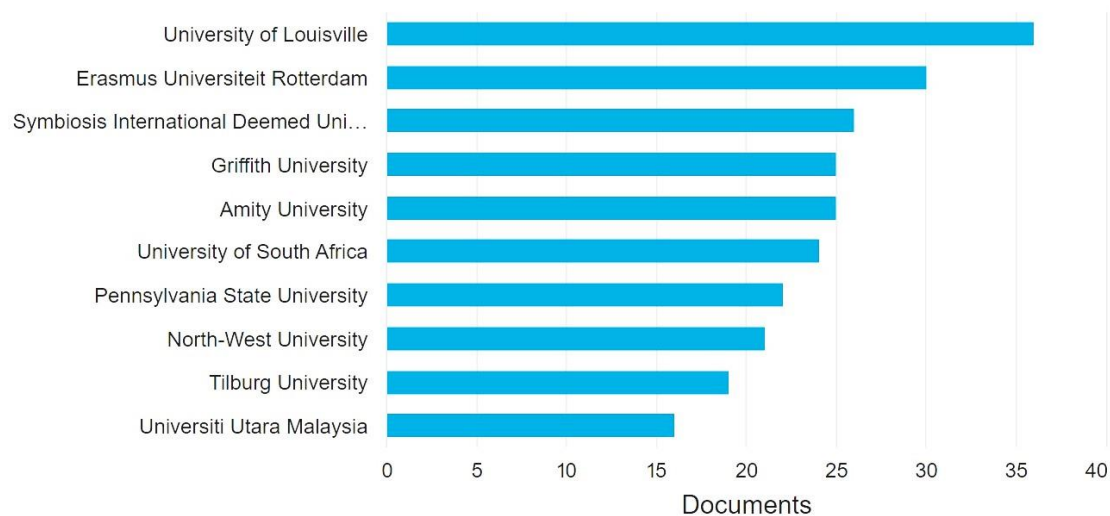


Figure 3. Publication on employee engagement research according to the organization, institution or university



Upon scrutinising the data set, it has been ascertained that publications concerning employee engagement are widespread across 106 countries. A majority of research in this domain has been carried out in the United States, accounting for 25.42% of the total publications, followed by India (15.83%), United Kingdom (8.19%), Australia (4.8%), Malaysia (4.8%), China (4.67%), Indonesia (3.85%), South Africa (3.61%), Pakistan (3.36%), and Canada (3.24%), as illustrated in Figure 4.

### Documents by country or territory

Compare the document counts for up to 15 countries/territories.

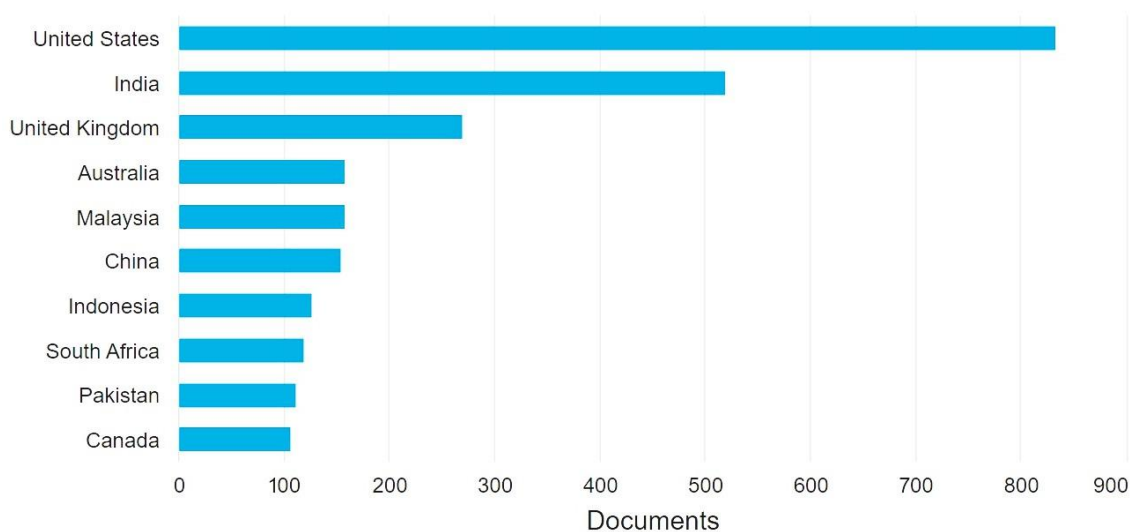


Figure 4. Publication on employee engagement research according to country

The diagram depicted in Figure 5 illustrates the various categories of scholarly articles that were published on the subject of employee engagement during the period spanning from 2013 to 2023. The data reveals that the majority of the publications, specifically 76.0%, fall under the category of "Article" with a total of 2488 publications. A smaller proportion of the publications, approximately 9.1%, are classified as "Conference paper" with a total of 299 publications. Additionally, 7.2% of the publications are categorised as "Book Chapter" with a total of 236 publications, while 4.0% are classified as "Review" with a total of 131 publications.

## Documents by type

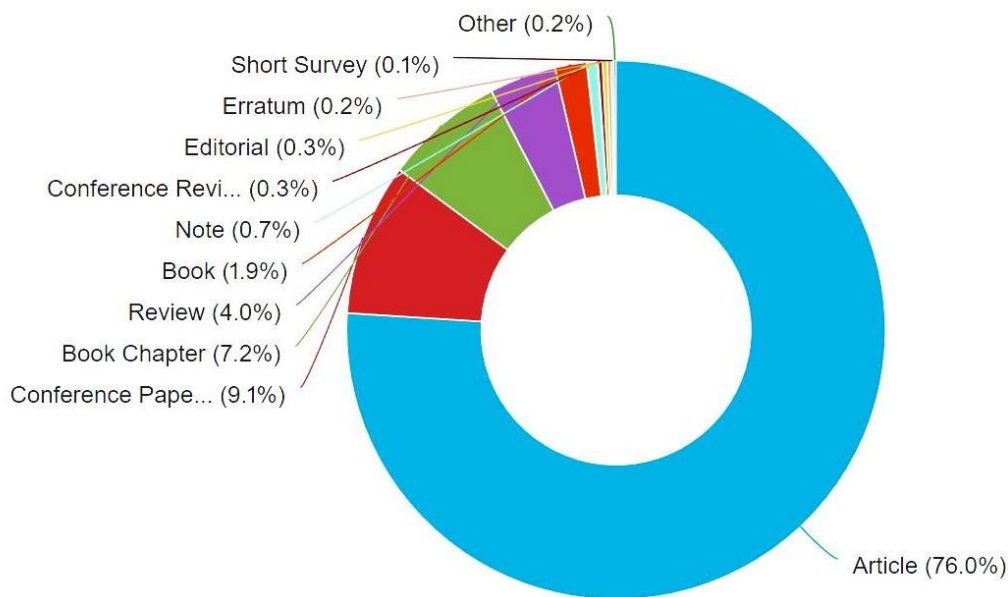


Figure 5. Publication on employee engagement research according to document type

### 3. The researcher with the greatest number of citations and highest level of influence

The findings of the citation analysis revealed that Table 1 ranked the top 10 authors with the highest number of citations. The analysis reveals that K. Alfes holds the highest degree of authorial influence. In addition, A. Bakker, V. Kumar, M. Tims, and C. Bailey have demonstrated exceptional performance. Through the integration of the data presented in Table 1 and Figure 2, it can be inferred that A. Bakker holds the greatest level of authorial influence. This is due to his publication of 28 papers, as well as a single paper in 2014 which has garnered 1064 citations, equating to an average of 118.22 citations per year. Additionally, he was ranked second in GSRank.

Table 1: Most Cited Author

Cites	CitesPerYear	Authors	Title	GSrank	Year
2375	237.5	K. Alfes	The link between perceived human resource management practices, engagement and employee behaviour: A moderated mediation model	8	2013
1064	118.22	A. Bakker	Burnout and Work Engagement: The JDR Approach	2	2014
601	85.86	V. Kumar	Competitive advantage through engagement	3	2016

596	59.6	M. Tims	The impact of job crafting on job demands, job resources, and well-being	4	2013
376	62.67	C. Bailey	The Meaning, Antecedents and Outcomes of Employee Engagement: A Narrative Synthesis	10	2017
370	41.11	J. Anitha	Determinants of employee engagement and their impact on employee performance	11	2014
337	42.13	S.L. Albrecht	Employee engagement, human resource management practices and competitive advantage: An integrated approach	12	2015
315	35	A.M. Saks	What Do We Really Know About Employee Engagement?	13	2014
314	31.4	O.M. Karatepe	High-performance work practices and hotel employee performance: The mediation of work engagement	14	2013
306	34	K. Breevaart	Daily transactional and transformational leadership and daily employee engagement	15	2014

Source: Harzing Publish or Perish obtained on 3<sup>rd</sup> June 2023.

#### 4. The keywords analysis and employee engagement trend topics

The nomenclature "keywords" pertained to substantive nouns or phrases that encapsulated the fundamental essence of a given literary work, as suggested by Xiang et al. in 2017. The quantification of a scientific article's impact can be inferred from the frequency with which it is cited as a reference in subsequent publications. The evaluation of research quality in scientific, technological, and social science journals was predicated upon citation analysis as a fundamental parameter, as asserted by Sevinc in 2004. The bibliometric analysis indicates that a total of 9027 keywords were utilised in the course of this research. The utilisation of VOSViewer for the analysis of keyword co-occurrence has been employed to effectively demonstrate the current areas of focus within the realm of employee engagement research. The visualisation in Figure 6 was generated by setting the co-occurrence threshold of the keywords to 5, resulting in the inclusion of 766 items.

The magnitude of the circles denotes the frequency of the keywords. There is a positive correlation between the size of a circle and the frequency of co-selection of a keyword in publications related to employee engagement. The term "employee engagement" exhibited the highest degree of its strength. The proximity of the two keywords exhibited a correlation with their respective levels of potency and thematic affinity. Publications featuring circles within a similar colour cluster indicate a common theme.

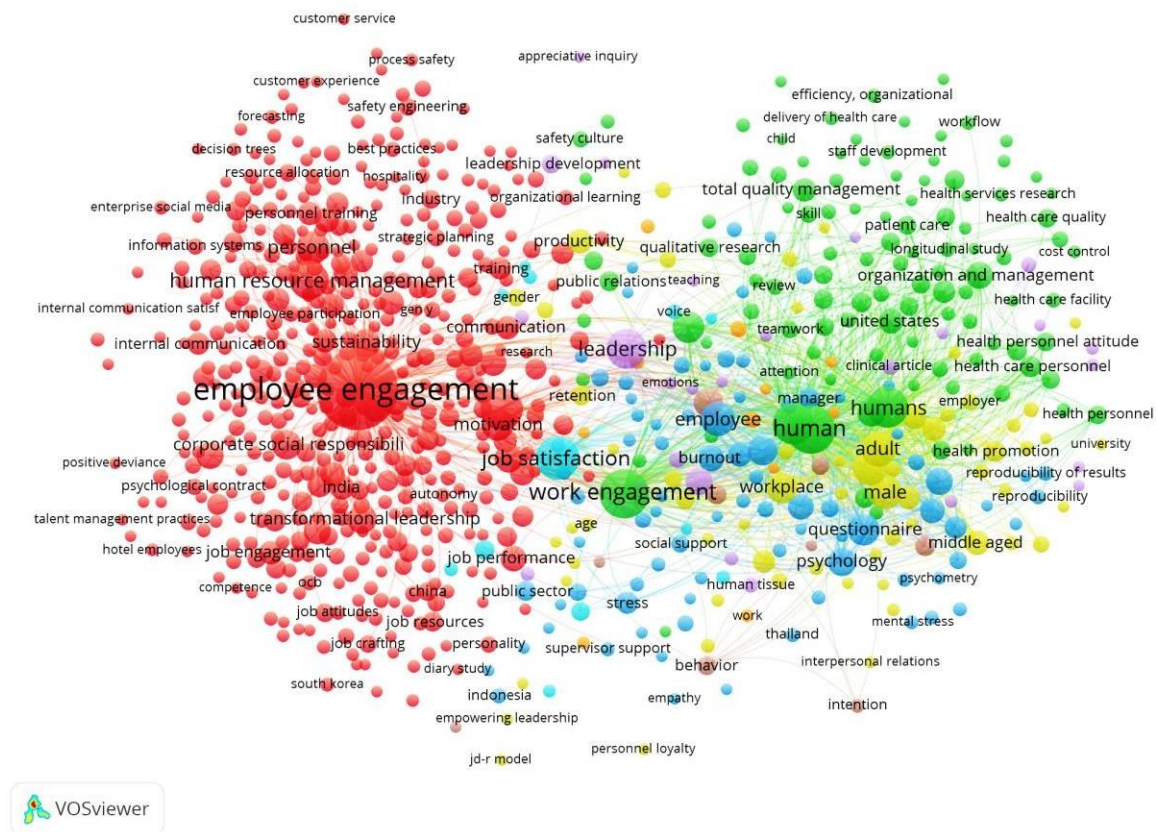


Figure 6. Network visualization map of keywords' co-occurrence

Figure 6 depicts a co-keyword network that effectively demonstrates the presence of eight discrete clusters. Each of them denoted a distinct subcategory within the broader domain of employee engagement. By analysing the primary node circles of each cluster, it is possible to assign suitable labels to the eight main clusters. This paper will provide a detailed analysis of the five primary clusters. The red cluster (Figure 6, cluster 1, 729 links, 1590 occurrences) demonstrated a correlation between keywords such as corporate social responsibility, transformational leadership, human resource management, sustainability, personnel, and the topic of "employee engagement". The second cluster (green colour) depicted in Figure 6, comprising 538 links and 362 occurrences, is characterised by the presence of keywords such as leadership, human or humans, employee, psychology, among others. These keywords are primarily associated with the domain of work engagement. In the soft blue cluster (Figure 6, cluster 3, consisting of 389 links and 115 co-occurrences), the focus was on the "employee" aspect, with keywords such as human experiment, satisfaction, organizational culture, and total quality management being prominent. The yellow cluster (cluster 4), as depicted in Figure 6 and comprising 394 links and 140 co-occurrences, exhibited a correlation between adult-oriented themes and keywords such as health promotion, satisfaction, job satisfaction, productivity, workplace, and male. Subsequently, within the purple cluster (as depicted in Figure 6), cluster 5 comprising of 458 links and 201 co-occurrences, the keywords that emerged were centred around employee engagement, work engagement, management, workplace, human or humans, organization and management, primarily pertaining to the domain of "leadership".

Figure 7 illustrates the utilisation of colours to depict the temporal fluctuations in keyword frequency, spanning from 2017 (depicted in dark purple) to 2021 (depicted in yellow). Throughout various sub-domains of research on employee engagement, common keywords such as work engagement, leadership, job performance, productivity, and human resource management were frequently observed (Albrecht, 2010; Bakker &

Schaufeli, 2008; Bakker et al., 2011; Judge & Piccolo, 2004; Kahn, 1990; Macey & Schneider, 2008; Saks, 2006; Shuck & Herd, 2012).

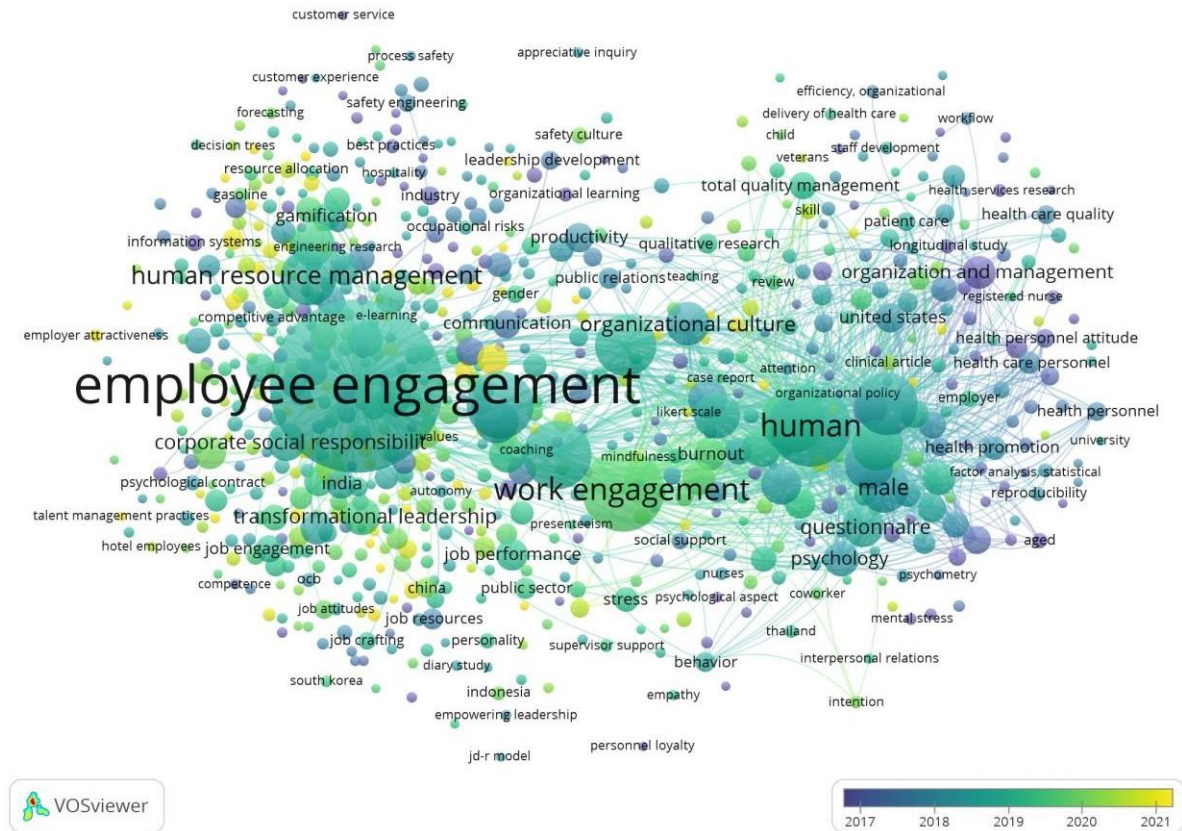


Figure 7. Overlay visualization map of keywords' co-occurrence

## 5. Co-Authorship Visualization Analyses

The findings derived from the VOSviewer analysis exhibit a captivating trend. At the author level, the Total Link Strength (TLS) value is observed to be zero, which suggests a lack of collaboration among the authors included in the dataset. This is despite the identification of three items, as illustrated in Figure 8.





Figure 8. Co-author network visualization map of authors based on document-weights

## 6. Network Visualization co-authorship by countries

Figure 9 depicts a co-author visualisation map of countries, which was generated using VOSviewer. During the cartographic representation of Figure 9, a minimum document threshold of 5 was established for a given country. Among the total of 173 countries, 69 of them satisfy the established criteria. In contrast, upon analysing the data at the country-level, it is evident that the TLS exhibits a substantial increase. Notably, the United States has the highest TLS of 223, with 833 documents. The data indicates the existence of numerous collaborative connections among the countries represented in the dataset.

Upon further examination of the network visualisation of co-authorship by countries, it is observed that the size of the circles corresponds to the quantity of documents. Specifically, larger circles indicate a greater number of documents. The categorization of employee engagement research into five distinct scientific camps was facilitated by the utilisation of five distinct colours. The countries that were included in the employee engagement research were United States (n=833), India (n=518), United Kingdom (n=870), Malaysia (n=158), South Africa, Thailand, India, and China. These nations were found to be significantly interconnected in terms of cooperation with regard to the aforementioned research. The team, identified by the light blue colour, is responsible for assembling a group of countries and regions including China (n=153), Japan, the Russian Federation, the United Kingdom, Turkey, Italy, the United Arab Emirates, South Korea, among others.

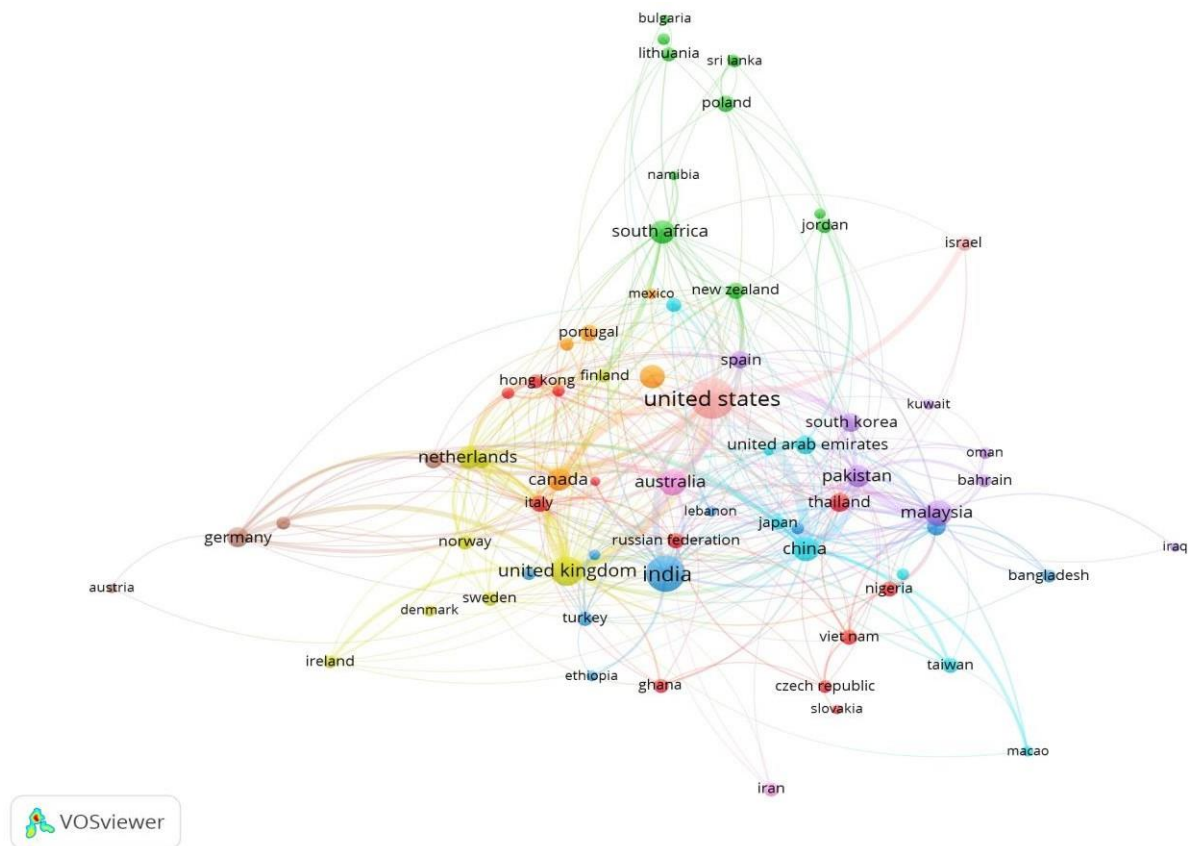


Figure 9. Co-author network visualization map of countries based on document-weights

The potential inference from the coexistence of these two outcomes is that authors are engaging in international collaborations as opposed to domestic ones. The impetus for this phenomenon may stem from a multitude of factors, including the worldwide scope of the research subject, the need for international resources and proficiency to conduct the research, or the encouragement of global cooperation by funding agencies or academic institutions. This statement suggests that there is a varied group of authors within each country who are making unique contributions to the field. The absence of collaboration within a country implies that despite the proximity of authors, their research may be highly specialised or divergent, thereby impeding collaboration.

In order to gain a deeper comprehension of the underlying causes of this trend, it would be beneficial to scrutinise the distinct fields of expertise of each author, their institutional associations, funding, and any additional variables that could potentially impact their decision to engage in international collaboration. The present analysis underscores the significance of taking into account various tiers of collaboration in bibliometric research. Merely examining authorship patterns in isolation is insufficient; a comprehensive analysis must also take into account the wider geopolitical landscape within which these patterns emerge.

## 7. Network visualization co-authorship by organizations

A study utilising VOSviewer for the purpose of detecting co-authorship networks predicated on organizational affiliations has been executed. Out of the 5904 organizations that were analysed, only four organizations were found to have met the minimum threshold of seven documents as shown in Figure 10. The aforementioned entities are the following:

- (a) Department of Industrial and Organizational Psychology, University of South Africa, Pretoria, South Africa
- (b) Erasmus University Rotterdam, Netherlands
- (c) Griffith University, Australia
- (d) University of Louisville, Ky, United States

It is noteworthy that the TLS among these entities is zero. The analysed dataset reveals a lack of direct collaborations or co-authorship relationships between the specific organizations in question.

Based on the aforementioned results, the research suggests that although these entities each satisfied the minimum requirement of possessing a minimum of seven documents, there is a lack of substantiation regarding any cooperative research or co-authorship affiliations among them. The findings indicate that within the examined dataset, the identified entities did not engage in cooperative efforts to generate academic publications. It is imperative to construe the outcomes while taking into account the constraints of the dataset and the particular analysis executed. The lack of co-authorship associations among these entities may be attributed to several factors, including research emphasis, spatial separation, or the intrinsic characteristics of the dataset.

Additional investigation or analysis may be necessary to examine the underlying causes for the absence of co-authorship linkages and to attain a more comprehensive comprehension of the research terrain within the domain under examination. Furthermore, expanding the scope of the dataset or adjusting the threshold criteria could potentially uncover supplementary co-authorship networks and provide further insight into collaborative endeavours within the discipline.

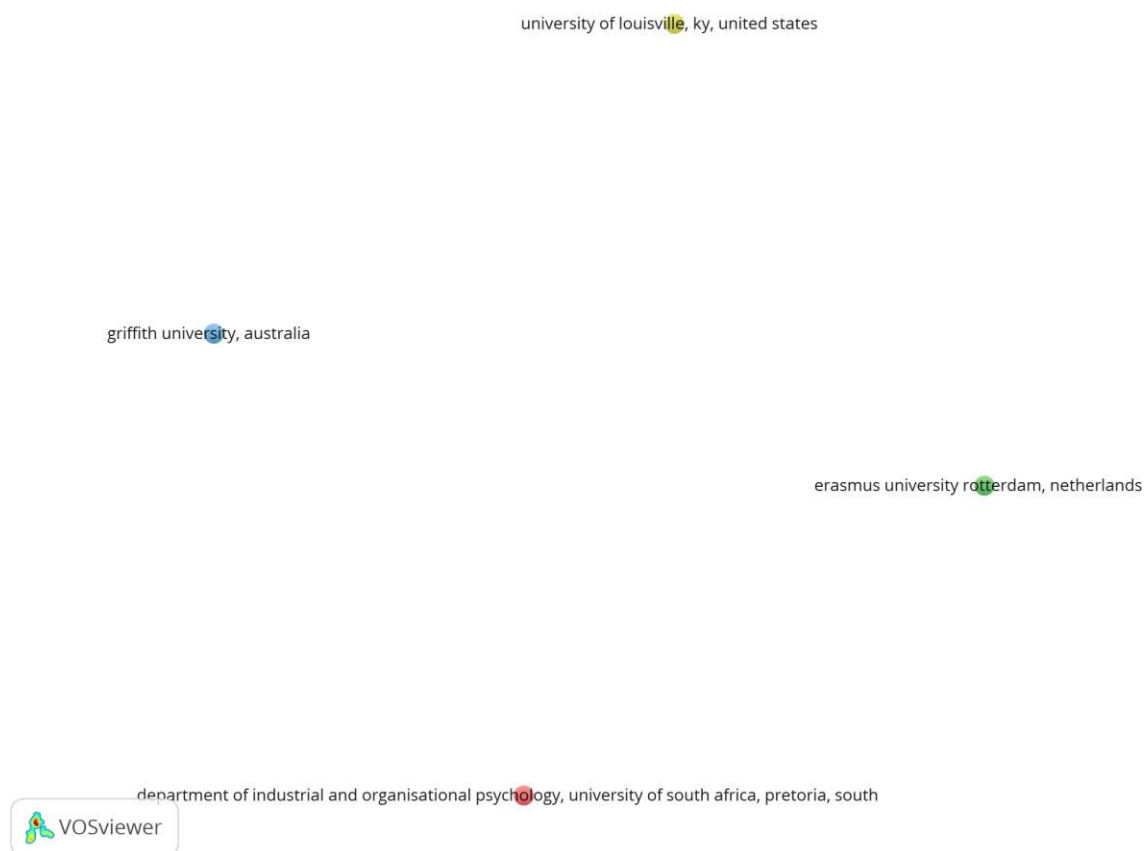


Figure 10. Co-author network visualization map of organizations based on document-weights



## CONCLUSION AND RECOMMENDATION

The present study has thoroughly examined the intricate landscape of scholarly works related to research on employee engagement, encompassing a wide-ranging timeframe of ten years, from 2013 to 2023. The present study's methodology is firmly grounded in bibliometric analysis, which facilitate an extensive review of the development and patterns in this crucial field of research.

The research demonstrates a consistent upward trend in the study's analysis of employee engagement between 2013 and 2023, with the exception of a minor decline in 2014. It is noteworthy that the COVID-19 pandemic has seemingly stimulated a heightened level of attention in this particular field, as evidenced by a marked increase in scholarly works published during the year 2020. The field exhibited a strong growth trend as evidenced by the publication of 2,221 works spanning the years 2018 to 2023. As of the beginning of June in the year 2023, the field has amassed a total of 223 publications. However, it is currently premature to make any conclusive predictions regarding the trajectory of ongoing research trends.

A bibliometric analysis was conducted on keywords related to the field, revealing the presence of eight distinct thematic clusters. The keyword "employee engagement" was found to be the biggest cluster, as it is the primary focus of this study. Other key themes that were closely associated with employee engagement included corporate social responsibility, transformational leadership, human resource management, psychology, and job satisfaction. By using VOSViewer as a visualization tool, the significance of these keywords and their thematic relationships were effectively demonstrated, providing a comprehensive overview of the evolving focus areas and recurring themes within the field.

The analysis conducted using VOSViewer has unveiled noteworthy patterns of collaboration. Although three items were identified, no collaborations among authors were detected, resulting in a TLS value of zero. Nonetheless, a divergent situation surfaced at the level of the nation whereby, among 173 countries, 69 satisfied the criteria for inclusion. Notably, the United States exhibited the most elevated TLS, amounting to 223 and encompassing 833 documents. This statement implies a noteworthy global partnership in the field of employee engagement research. At the organizational level, it was observed that although four organizations met the minimum document threshold, there was a lack of joint research efforts as no direct collaborations were identified. It is advisable to conduct additional inquiry to gain a more comprehensive understanding of these patterns, and modifying the dataset or threshold criteria may yield more profound insights.

The importance of employee engagement is paramount, as it serves as a crucial determinant not only for the well-being of the employees but also for the overall vitality of the organization. When employees are highly engaged, they typically exhibit increased productivity, strong motivation, and a steadfast dedication to their work responsibilities. The condition of being actively involved and invested in one's work can act as a stimulant, leading to increased levels of contentment with one's occupation and promoting a deep-seated feeling of individual gratification. Furthermore, from a managerial perspective, employees who are actively engaged serve as significant catalysts, propelling the organization towards enhanced levels of performance, stimulating creative ideation, and reinforcing customer satisfaction. It is apparent that organizations that prioritise employee engagement experience significant advantages. Enhanced retention rates and substantial productivity gains are commonly observed among individuals who exhibit a strong sense of engagement. This reinforces the strategic value of fostering engagement as a means of generating substantial returns.

In terms of contributions, this bibliometric analysis categorizes its contributions into three distinct areas: theoretical implications, practical implications, and limitations and future research. These areas are outlined as follows:

### Theoretical implications

The objective of this research is to examine advancements in the field of employee engagement through the utilisation of bibliometric analysis to comprehensively and scientifically review published works. By conducting a frequency analysis of author keywords and utilising VOSviewer's thematic mapping techniques and Publish or Perish software, the research on employee engagement has been thoroughly examined. This

analysis has allowed for the identification of well-established themes, newly emerging ones, and theoretical foundations within the field. Such insights can aid in comprehending the research dynamics of employee engagement and identifying potential gaps in the literature, thereby paving the way for future research.

### **Practical implications**

The study's practical significance lies in its provision of valuable insights for researchers with expertise in employee engagement. Initially, researchers can ascertain the suitable academic journals, highly impactful articles, and prominent authors within their respective field. This enables them to conduct a comprehensive review of the literature authored by these individuals, thereby facilitating the direction of their future research endeavours and enhancing the precision of their manuscript preparation. Secondly, by identifying partnerships among nations, institutions, and authors, it is possible to establish potential partnerships in pertinent nations and institutions.

### **Limitations and future research**

This study is subject to several limitations that warrant consideration. Firstly, while Scopus is widely recognized as a comprehensive database for social science research (Mongeon & Paul-Hus, 2016), it is important to acknowledge that the search methodology employed may not have captured all relevant articles, as some publications may not be indexed in Scopus. Additionally, the data presented in this research may have been subject to changes or updates over time. To obtain more extensive bibliometric information, future studies could consider combining data from multiple databases, such as WoS, Google Scholar, and Science Direct, as well as exploring master's and doctoral theses for a more comprehensive perspective. Secondly, this study focused exclusively on literature that mentioned employee engagement in the title and abstract, potentially overlooking other relevant literature on the topic. As such, the findings of this study may not be universally applicable to all sectors or industries due to variations in characteristics. Future research could investigate employee engagement in different sectors, such as the public or private sector, or across various industries, such as healthcare, technology, and manufacturing, using a similar methodology to determine the attributes of employee engagement in these contexts.

### **REFERENCES**

- Abdullahi, M. S., Raman, K., Solarin, S. A., & Adeiza, A. (2023). Employee engagement as a mediating variable on the relationship between employee relation practice and employee performance in a developing economy. *Journal of Applied Research in Higher Education*, 15(1), 83-97.
- Albrecht, S. L. (2010). Employee engagement: 10 key questions for research and practice. In *Handbook of employee engagement*. Edward Elgar Publishing.
- Alfes, K., Shantz, A. D., Truss, C., & Soane, E. C. (2013). The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model. *The international journal of human resource management*, 24(2), 330-351.
- Alryalat, S. A., Malkawi, L., & Momani, S. M. (2019). Comparing Bibliometric Analysis Using PubMed, Scopus, and Web of Science Databases.
- Appio, F. P., Martini, A., & Massa, S. (2016). Unveiling the intellectual origins of Social Media-based innovation: insights from a bibliometric approach. *Scientometrics*, 108(1), 355-388.
- Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, 1(1), 377-386.
- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management Reviews*, 19(1), 31-53.

- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29(2), 147-154.
- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European journal of work and organizational psychology*, 20(1), 4-28.
- Birkle, C., Pendlebury, D. A., Schnell, J., & Adams, J. (2020). Web of Science as a data source for research on scientific and scholarly activity. *Quantitative Science Studies*, 1(1), 363-376.
- Burnett, J. R., & Lisk, T. C. (2019). The future of employee engagement: Real-time monitoring and digital tools for engaging a workforce. *International Studies of Management & Organization*, 49(1), 108-119.
- Davis, A. S., & Van der Heijden, B. I. (2023). Launching the dynamic employee engagement framework: towards a better understanding of the phenomenon. *Employee Relations: The International Journal*, 45(2), 421-436.
- Deng, S., & Xia, S. (2020). Mapping the interdisciplinarity in information behavior research: A quantitative study using diversity measure and co-occurrence analysis. *Scientometrics*, 124(1), 489-513.
- Echchakoui, S. (2020). Why and how to merge Scopus and Web of Science during bibliometric analysis: the case of sales force literature from 1912 to 2019. *Journal of Marketing Analytics*, 8, 165-184.
- Fahimnia, B., Sarkis, J., & Davarzani, H. (2015). Green supply chain management: A review and bibliometric analysis. *International Journal of Production Economics*, 162, 101-114.
- Follett, M. P. (1923). *The new state: Group organization the solution of popular government* (4th impression). Longmans, Green and Co.
- Gajendran, R. S., Harrison, D. A., & Delaney-Klinger, K. (2020). Are telecommuters remotely good citizens? Unpacking telecommuting's effects on performance via I-deals and job resources. *Personnel Psychology*, 63(2), 395-428.
- Gilbreth, L. M. (1914). *The psychology of management: The function of the mind in determining, teaching and installing methods of least waste*. Sturgis & Walton Company.
- Great Place to Work® (2021). Global Employee Engagement Benchmark study. <https://www.greatplacetowork.com/resources/blog/global-employee-engagement-benchmark-study>.
- Harvard Business Review. (2021). How Companies Can Improve Employee Engagement Right Now. <https://hbr.org/2021/10/how-companies-can-improve-employee-engagement-right-now>
- Herzberg, F. (1959). *The motivation to work*. John Wiley & Sons.
- Jiang, K., Hu, J. I. A., Liu, S., & Lepak, D. P. (2017). Understanding employees' perceptions of human resource practices: Effects of demographic dissimilarity to managers and coworkers. *Human Resource Management*, 56(1), 69-91.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, 89(5), 755.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
- Lai, C.-L. (2020). Trends of mobile learning: A review of the top 100 highly cited papers. *British Journal of Educational Technology*, 51(3), 721-742.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1(1), 3-30.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2(2), 99-113.
- Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: a comparative analysis. *Scientometrics*, 106, 213-228.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. Academic Press.
- Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27(3), 521-535.
- Oldham, G. R., & Hackman, J. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250-279.

- Perianes-Rodriguez, A., Waltman, L., & Van Eck, N. J. (2016). Constructing bibliometric networks: A comparison between full and fractional counting. *Journal of Informetrics*, 10(4), 1178-1195.
- Rich, B. L., LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617-635.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619.
- Schaufeli, W. B. (2013). What is engagement?. In C. Truss, K. Alfes, R. Delbridge, A. Shantz, & E. Soane (Eds.), *Employee engagement in theory and practice*. London: Routledge.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational, and Organizational Psychology*, 25(3), 293-315.
- Sevinc, A. Web of science: A unique method of cited reference searching. *J. Natl. Med. Assoc.* 2004, 96, 980–983.
- Shuck, B., & Herd, A. M. (2012). Employee engagement and leadership: Exploring the convergence of two frameworks and implications for leadership development in HRD. *Human resource development review*, 11(2), 156-181.
- Shuck, B., & Wollard, K. (2010). Employee engagement and HRD: A seminal review of the foundations. *Human Resource Development Review*, 9(1), 89-110.
- Shuck, B., Adelson, J. L., & Reio, T. G. (2017). The employee engagement scale: Initial evidence for construct validity and implications for theory and practice. *Human Resource Management*, 56(6), 953-977.
- Stein, D., Hobson, N., Jachimowicz, J. M., & Whillans, A. (2021). How companies can improve employee engagement right now. *Harvard Business Review*.
- Sun, L., & Bunchapattanasakda, C. (2019). Employee engagement: A literature review. *International Journal of Human Resource Studies*, 9(1), 63-80.
- Truss, C., Alfes, K., Delbridge, R., Shantz, A., & Soane, E. (2013). *Employee engagement in theory and practice*. London: Routledge.
- Waltman, L., Van Eck, N. J., & Noyons, E. C. (2010). A unified approach to mapping and clustering of bibliometric networks. *Journal of Informetrics*, 4(4), 629-635.
- Xiang, C.; Wang, Y.; Liu, H. A scientometrics review on nonpoint source pollution research. *Ecol. Eng.* 2017, 99, 400–408.
- Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429-472.